

## Chapter III. Goals and Objectives

This chapter contains the local goals and objectives intended to meet state water quality objectives while addressing the resource issues of concern identified by the Citizens Advisory committees. It is the intention of the Land Resources Division, partnering with other departments and agencies when appropriate, to initiate implementation activities that achieve measurable results through a combination of information and education, comprehensive and proactive planning, landowner incentives and the enforcement of county ordinances.

### Identification of Resource Issues of Concern

As mentioned in Chapter I, two advisory committees were assembled to assist the LRD in updating this plan. One of their primary tasks was to help identify the major resource issues of concern facing Waukesha County. Using a nominal group process, the two advisory committees were asked the following question:

***What agricultural/non-agricultural conservation issue do you believe impacts the land and water resources of Waukesha County and should be addressed by the Land Resources Division?***

Responding to this question produced a list of 61 issues. To help set priorities for this plan, these issues were grouped into eight more general goals, and the committee members were asked to rank their top five goals in order of priority. The following list is the result of this ranking:

1. Control Urban Runoff Pollution and Flooding
2. Minimize Impacts of Land Development on Water Resources
3. Protect the Quality and Quantity of Groundwater
4. Control Agricultural Runoff Pollution
5. Educate Children and Adults about Conservation Issues
6. Protect Farmland
7. Monitor Water Quality of Local Lakes and Streams
8. Control Exotic and Invasive Species in Aquatic and Terrestrial Habitats (*Note: Later replaced with "Reclaim Active Nonmetallic Mining Sites" – see explanation below.*)

The LRD used the above "Goals" as a foundation for the development of this plan, as described below. Under each goal is some background information and brief discussion of how that goal applies to Waukesha County, followed by a list of "Objectives". The background information is often based on the resource assessment provided in Chapter II. The objectives were primarily developed from the original list of 61 resource issues and concerns generated by the advisory committees. These objectives are incorporated into the Activity Plan in Chapter IV, showing more specifically how the LRD will work toward accomplishing the objective over the next 5 years (2006-2010). The same numbering system was used in both chapters to allow easy cross-referencing.

The goals and objectives listed below represent priorities for land and water resource management in Waukesha County. They are presented in order of importance as ranked by the Citizens Advisory Committees. It should be noted that, while all of the resource issues or goals identified by the committees were determined to be important, fiscal constraints, state mandates and other program commitments would limit the LRD's ability to commit to all the goals and objectives developed by the advisory committee. These facts also played a role in establishing the level of staff resources that could be assigned to each goal, devoting more time to some than others, as shown in Chapter IV. As a result, item

#8 relating to exotic and invasive species was removed as a goal and incorporated as a topic for information and education efforts under goal #5. In addition, two goals were added. One to reflect a state mandate for nonmetallic mine reclamation and a “miscellaneous” category to recognize a few on-going LRD program commitments. The miscellaneous category is not discussed in this chapter since the stated activities are believed to be self-explanatory.

The LRD made every effort to incorporate each resource issue generated by the advisory committees into the activity plan in some manner. Many of them were incorporated as specific activities in Chapter IV rather than objectives. The most common example is adding the issue as an educational topic or activity. The background information provided under each goal offers more details.

It should also be noted that during discussions at the advisory committee meetings, a ninth goal was identified: “Build Partnerships with Other Conservation Organizations/Agencies.” Since this goal applied to most of the resource issues identified, it has been incorporated as a guiding principle for the development of the entire activity plan in Chapter IV.

## **Plan Goals**

### **Goal 1: Control Urban Runoff Pollution and Flooding**

#### Background:

Numerous factors have combined to keep development pressures strong in Waukesha County over the last several decades, resulting in over 4.6 square miles of “new” urban/suburban development each year since 1990. Inventory results compiled through the Upper Fox River Priority Watershed Project have revealed that construction sites and developed urban areas account for 85% of the sediment loads in that watershed. In some parts of the county, localized flooding issues have developed over the years as more impervious surfaces such as rooftops and pavement are created. Local governments, including Waukesha County, have responded with erosion control and storm water management ordinances. Enforcing this ordinance currently represents the single largest workload for the LRD. The Citizens Advisory Committees, recognizing the impact the urbanizing landscape is having on the water resources of the county, ranked this issue as the top priority in the LWRM planning process. While this ranking reinforced the importance of existing program efforts, the committee also suggested a number of program improvements, which are described further below and in Chapter IV.

#### Objectives:

- A. Improve consistency and effectiveness of storm water ordinance implementation
- B. Clarify infiltration and soil testing requirements
- C. Improve maintenance plans and agreements for storm water practices
- D. Encourage innovative BMPs for erosion control & storm water management
- E. Encourage practices that treat storm water as an asset
- F. Control runoff from existing developments
- G. Promote stream and wetland buffers
- H. Update existing floodplain maps and encourage mapping of unstudied areas
- I. Provide technical services to other agencies upon request

## **Goal 2: Minimize Impacts of Land Development on Water Resources**

### Background:

This goal reflects the need to for a more proactive approach to urban runoff management by watershed. Nationwide, studies have shown that increasing the amount of impervious surfaces in a watershed can have dramatic impact on the water quality of a stream. With as little as 10% of a watershed being covered by impervious surfaces, negative impacts are usually found in the receiving body of water. Sediments fill the pore spaces of gravel riffles eliminating habitat for aquatic insects and fish spawning sites. The stream can change physically, becoming shallower, warmer, and wider with eroding streambanks and an expanding floodplain. Historically, by the time a watershed is covered with 25% or more impervious surfaces, most streams are severely degraded. The challenge is to prevent this from occurring through better land use and storm water planning.

Most storm water planning is still done on a site-by-site basis as development plans for individual construction projects are approved through a permitting process at the local level of government. The main limitations of this type of planning are that it is difficult to determine cumulative impacts of land use and storm water management decisions on a water resource, or to coordinate activities between units of government within the same watershed. Watershed protection planning takes a broader view of land development and storm water management. This type of planning allows communities to work together toward a common goal of protecting a water resource through coordinated land use and storm water planning by watershed. This can result in selecting where regional storm water facilities should be located before development is proposed, while identifying areas that need to be preserved or where impervious surfaces should be limited. The LRD has already obtained a DNR grant to prepare a watershed protection plan for the Pebble Creek Watershed, a cold water stream on the west side of Waukesha. Given the high ranking by the advisory committee, the LRD will plan to continue with these types of efforts.

### Objectives:

- A. Promote and demonstrate watershed protection planning
- B. Work towards the protection of outstanding/exceptional resource waters
- C. Promote low impact development

## **Goal 3: Protect the Quality and Quantity of Groundwater**

### Background:

Concern for the quality and quantity of groundwater in Waukesha County has taken the front stage over the past several years. The deep aquifer, which provides water for many of the larger communities in the county, has been drawn down over 500 feet from natural levels in the eastern part of the county. The deep aquifer is also known to have naturally occurring radium levels that exceeds the U.S. EPA standards for drinking water. The shallow aquifers by their very nature are generally more susceptible to contamination from a variety of sources and support stream base flows and lake levels, making competing interests common. Disagreements have arisen over proposed municipal wells and development projects near lakes and groundwater recharge areas.

The Southeastern Wisconsin Regional Planning Commission (SEWRPC), working in cooperation with the U.S. Geological and Natural History Survey, the University of Wisconsin-Milwaukee, the DNR, water supply utilities, and other local units of government, has completed the first two phases of a three phase regional water supply management program. The first two elements, comprising the development of basic groundwater inventories and a groundwater simulation model for the southeastern Wisconsin region, were completed over the past several years. The third element, preparation of a regional water supply management plan, is expected to be completed by the end of 2006. The regional water supply plan

will be based upon a design year of 2035 and, when adopted, is likely to lead to future refinements in land use plans across the region. These factors, along with the pace of development referenced in Goal #1, led the Citizens Advisory Committees to rank this issue highly.

Objectives:

- A. Promote water conservation
- B. Assist with regional water supply planning efforts
- C. Encourage protection of groundwater recharge areas
- D. Minimize the impacts on groundwater of nutrients, pesticides and road salt contained in storm water runoff.

**Goal 4: Control Agricultural Runoff Pollution**

Background:

Participation in USDA Farm Bill programs, Farmland Preservation, and Priority Watershed projects has resulted in the development of conservation plans for a large percentage of cropland acres. Transect survey results from 2001 revealed that nearly 90% of the cropland is at or below “T” value, the state and federal standard for allowable erosion rates that would maintain soil productivity indefinitely. The remaining 10% of cropland is eroding at a rate above the “T” standard and would be a target for conservation programs. These fields would need to be identified and corrective measures applied.

As noted in Chapter II, development pressures are a daily fact of life for agricultural producers in Waukesha County. While there is still a considerable amount of agricultural production from the remaining farms, the LRD considers many of the farms to be a temporary land use – to be converted to an urban land use in the near future. Therefore, if problem fields or livestock facilities are located in an area planned for development, it would not be not good public policy to invest scarce resources to address the agricultural runoff issues that may exist for the short term. Because of this, the LRD will continue to limit staff resources assigned to agricultural compliance efforts, and focus those efforts in areas beyond potential near term development plans.

Objectives:

- A. Implement the agricultural performance standards
- B. Promote wetland restoration
- C. Promote buffers along all water resources for water quality, wildlife habitat, and groundwater recharge

**Goal 5: Inform and Educate Children and Adults about Conservation Issues**

Background:

The primary goal of the Waukesha County LRD information and education effort is to protect water quality through the education of county residents, urging them to act as good stewards of the land and water. Topics and methods of information delivery to target audiences vary, depending on age, interests, occupations, or location. Effective educational strategies can be as simple as a one-on-one contact with a landowner, or as complex as a large workshop with hundreds of participants. Tools for delivering the message can include: brochures, newsletters, signs, tours, workshops, demonstration sites, videos, websites and others. Opportunities for partnerships with other agencies, governments, schools, or local interest groups will continue to be sought as part of plan implementation. Key topics identified by the Citizens Advisory Committees are listed below, sorted by target audiences.

#### Target Audiences / Key I/E Topics

- A. Homeowners & general public/Nonpoint source pollution, groundwater & water conservation, public health impacts of pollution, and exotic species control
- B. Rural land owners & Farm operators / Agricultural performance standards, erosion control, animal waste & nutrient management, buffers, wetland restoration and soil survey use
- C. Builders, developers & engineers / Storm water management & erosion control, native plantings & management, exotic species control and conservation subdivisions
- D. Schools & youth groups / Groundwater & water conservation, nonpoint pollution, rain gardens, Green Schools, recycling, water quality monitoring
- E. Lake groups & riparian property owners / Nonpoint pollution, value of shoreline buffers and how to best manage them, and exotic species control

### **Goal 6: Protect Farmland as per County Comprehensive Development Plan**

#### Background:

In 1984, the Waukesha County Board of Supervisors adopted the Waukesha County Agricultural Land Preservation Plan. The criteria for defining what constitutes prime agricultural land were modified when the County adopted the Comprehensive Development Plan in 1997. Subsequent revisions to the Agricultural Land Preservation plan were rejected at the state level. In an effort to remedy the situation and, as part of the Comprehensive Development Plan Update process, the Department of Parks and Land Use proposed new 10-acre density criteria for “secondary agricultural land” based on soils and land use. However, the plan advisory subcommittee did not adopt the proposed criteria.

Due to the general lack of local support and limited LRD staff time, some objectives identified during the resource issues brainstorming session with the Citizens Advisory Committees were not included in this plan. These include: promoting locally grown food and the purchase of development rights. The County Comprehensive Plan and zoning ordinance currently include provisions to protect the rural character and encourage the transfer of development rights. While these provisions are administered by the county, they require support by the local town officials to make them effective. The LRD remains committed to assisting local governments and other entities, with pursuing options for farmland preservation in accordance with adopted land use plans, and will provide information or technical support to such efforts on request.

#### Objective:

Assist local governments with preserving the rural character and balancing farmland protection with orderly growth in accordance with adopted land use plans.

### **Goal 7: Monitor Water Quality/Flow of Local Lakes and Streams**

#### Background:

One of the criticisms of pollution reduction programs, especially pollution from diffuse sources, has been the lack of quantifiable information on the effectiveness of program efforts. This is exacerbated by the expense of maintaining multiple monitoring locations and the need to collect data over a period of time and not just rely on a “snapshot.” In the past several years, programs such as the Water Action Volunteers (WAV), groups such as the Rock River Coalition, Pewaukee River Partnership, and some DNR Basin teams have made use of citizen volunteer stream monitors. Self-Help Lake Monitoring is a program that has been in existence for even longer. These monitoring programs rely upon dedicated citizen volunteers who believe that the data they collect will be helpful in water resource management efforts. The LRD has trained teams of stream monitors for several years and will continue to look for

opportunities to develop effective partnerships in the future. More information on these program efforts is provided in Chapter VI.

Objectives:

- A. Encourage and promote volunteer citizen monitoring efforts.
- B. Promote agency monitoring, stream gauges and data sharing

**Goal 8: Reclaim Active Nonmetallic Mining Sites**

Background:

In 2000, the Department of Natural Resources administrative rule NR 135 (Nonmetallic Mining Reclamation) was approved, which set forth statewide requirements relating to the reclamation of nonmetallic mining sites in Wisconsin. Under the new law, all counties in the state were required to adopt and enforce nonmetallic mining ordinances by June 1, 2001. All other municipalities had the option of adopting and enforcing these requirements. In response to this mandate, the Land Resources Division convened a workgroup to assist with drafting the Waukesha County Nonmetallic Mining Reclamation Ordinance. The workgroup completed the task in May of 2001 and the Waukesha County Board adopted the county Nonmetallic Mining Reclamation Ordinance in July 2001.

Presently, the LRD enforces the reclamation ordinance on 16 permitted sites around the county. Because it represents an ongoing workload for LRD staff, it is included here as a goal even though it was not identified as a resource issue of concern during the nominal group process with the Citizens Advisory Committees.

Objectives:

- A. Enforce county nonmetallic mining reclamation ordinance
- B. Coordinate information exchange with the Waukesha County Mineral Extraction Advisory Committee
- C. Assist with nonmetallic mining portion of Comprehensive Development Plan
- D. Create a model for private/public intergovernmental cooperation by establishing a yard waste composting operation at a county-owned gravel pit.

**Water Resources Objectives**

One of the guiding principles behind the development and implementation of this plan is to support actions that promote the protection and improvement in the water resources of Waukesha County. Map II-9 illustrates the condition of the major surface water resources in Waukesha County. It should be noted that many of the streams in the county are only partially meeting water quality standards or supporting their potential biological use classification along their entire length. This is true regardless of if they are classified as a warm water forage fish community, a warm water sport fish community, or a cold-water community. More detailed information on the classification of a particular stream reach can be found in the DNR "State of the Basin" reports. Impairment factors that prevent the streams from reaching their full potential include (but are not necessarily limited to): urban and agricultural runoff; streambank erosion; hydrologic modification; habitat modification; construction site erosion; industrial and municipal point source discharge; ditching and channelization; elevated temperatures; wetland modification; and contaminated sediments.

Lake water quality in the county is also threatened by a variety of impairment factors. These can include (but are not limited necessarily limited to): urban and agricultural runoff; heavy shoreline development; exotic species; excessive nutrients; and habitat modification. Local lakes are generally managed as warm water sport fisheries although some do support cold-water species as well, as shown in Map II-9.

Many of the goals and objectives outlined in this chapter are aimed to meet specific water resource objectives or standards for surface or groundwater, as documented in Wisconsin Administrative Code. Given the development pressures in the county, and the resulting impacts on water quality and quantity, it is often a goal to maintain existing water resource conditions in urbanizing watersheds. More monitoring is needed to measure the success of our efforts on local water resources, as described further in Chapter VI.